Amendments to the Specification:

Please replace paragraph [0011] with the following:

-- The system includes at least one base station for modulating a carrier signal in response to a data stream received at the base station and transmitting the modulated carrier signal through at least two distinct channels to at least one mobile station that is in communication with the base station. The ~~modulate~~ modulated carrier signal is received as a noisy modulated carrier signal that is ~~effected~~ affected by propagation medium fading and is demodulated to recover the data.--

Please replace paragraph [0023] with the following:

-- Once the carrier signal is ready for transmission ~~s the modulated carrier signal~~, the modulated carrier signal is transmitted to the mobile station 30 via the antennas 22 and 24. The base station 20 transmits the modulated carrier signal containing the data stream 40 through two channels or media 26 and 28 using antennas 22 and 24. With regard to fading, the intended meaning of the term channel is generic and can include a propagation medium as an environment for establishing communication in a wireless communication system. For example, communication can be established through air and water. Thus, the scope of the teachings set forth herein is not limited by the phrase utilized to refer to the communication link.--

Please replace paragraph [0025] with the following:

-- Once the modulated carrier signal is received at the mobile station 30, the unit 34 demodulates the modulated ~~carries~~ carrier signal to recover the data stream. The ~~modulate~~ modulated carrier signal is received from each of the channels 26 and 28 and includes various forms of noise, including the effects of fading. However, given that there are two paths and that each path will have different fading effects, there is a difference in the characteristics of the two modulated carrier signal received at the mobile station 30. Based on this difference, the unit 36 can determine feedback information, as discussed below, that can be provided to send to the base station 20. --

Please replace paragraph [0034] with the following:

-- Referring now to Fig. 4, the process of predicting channel feedback ~~beings~~ begins at step 100. At step 102, channel measurements are performed for each channel path, h_l. At step 104, the channel measurements are use to estimate the autoregressive coefficients for each channel path. At step 106, the next channel measurements for each path are predicted using the estimated autoregressive coefficients for each path. At step 108, a feedback command is generated using a combination of the predicted channel measurements for each channel path. --